

AMENDMENTS TO THE CLAIMS:

Replace the claims with the following rewritten version:

1.-16. (Cancelled)

17. (New) A method for providing parking aid for a vehicle, comprising:
 recording of ambient data in an external area of a vehicle,
 calculation of dimensions of a specific area using the recorded ambient data, and
 evaluation of a suitability of the specific area as a parking space taking into account the calculated dimensions and known, vehicle-specific reference values,
 wherein the recording of ambient data comprises recording three-dimensional images of surroundings by means of an optical 3-D system.
18. (New) The method as claimed in claim 17, wherein said optical 3-D system comprises a 3-D camera.
19. (New) The method as claimed in claim 17, wherein the recording of ambient data comprises the recording a situation image of the entire area of interest.
20. (New) The method as claimed in claim 17, wherein the recording of ambient data comprises the successive recording of adjacent component images of the area of interest.
21. (New) The method as claimed in claim 17, wherein a topographical image of the specific area is created on the basis of the recorded ambient data.
22. (New) The method as claimed in claim 17, wherein an obstacle in the specific region is detected on the basis of the recorded surroundings.

23. (New) The method as claimed in claim 17, wherein a result of the evaluation step is signaled to a driver of the vehicle.
24. (New) The method as claimed in claim 17, wherein, in addition to the calculation of the dimensions of the specific area, the position of the specific area with respect to the vehicle is determined on the basis of the recorded ambient data.
25. (New) The method as claimed in claim 24, wherein the calculated dimensions and position of the specific area are transmitted to a control system for an automatic parking system.
26. (New) A device for providing parking aid for a vehicle, comprising
a sensor device for recording ambient data in an external area of a vehicle,
and
an evaluation device for calculating dimensions of a specific area on a basis of the recorded ambient data and for evaluating a suitability of the specific area as a parking space on a basis of the calculated dimensions and known, vehicle-specific reference values,
wherein the sensor device comprises an optical 3-D sensor system for recording three-dimensional images of surroundings.
27. (New) The device as claimed in claim 26, wherein the optical 3-D system comprises a 3-D camera.
28. (New) The device according to claim 26, wherein the evaluation circuit determines the dimensions of the specific area on the basis of a situation image of the entire area of interest.
29. (New) The device as claimed in claim 26, wherein the evaluation circuit determines the dimensions of the specific area on the basis of a plurality of

successively recorded component images of the area of interest, wherein the various component images are correlated with one another by way of a determined vehicle velocity.

30. (New) The device as claimed in claim 26, wherein the sensor device operates in the infrared range.
31. (New) The device as claimed in claim 26, wherein the evaluation device is coupled to an information system for outputting a result of the evaluation step to a driver of the vehicle.
32. (New) The device as claimed in claim 26, wherein the evaluation unit has means for determining the position of the specific area with respect to the vehicle.
33. (New) The device as claimed in claim 31, wherein the evaluation device is coupled to a control system for an automatic parking system in order to transmit dimension data and position data of the specific area.
34. (New) The device as claimed in claim 26, wherein the optical 3-D sensor system is mounted on the vehicle, in the external area of the vehicle.
35. (New) A method for providing parking aid for a vehicle, comprising
 - recording of ambient data in an external area of a vehicle,
 - calculation of dimensions of a specific area using the recorded ambient data, and
 - evaluation of a suitability of the specific area as a parking space taking into account the calculated dimensions and known, vehicle-specific reference values,
 - wherein the recording of ambient data comprises recording three-dimensional images of surroundings by means of an optical 3-D camera.

36. (New) The method as claimed in claim 35, wherein the recording of ambient data comprises the recording a situation image of the entire area of interest.
37. (New) The method as claimed in claim 35, wherein the recording of ambient data comprises the successive recording of adjacent component images of the area of interest.
38. (New) The method as claimed in claim 35, wherein a topographical image of the specific area is created on the basis of the recorded ambient data.
39. (New) The method as claimed in claim 35, wherein an obstacle in the specific region is detected on the basis of the recorded surroundings.
40. (New) The method as claimed in claim 35, wherein a result of the evaluation step is signaled to a driver of the vehicle.
41. (New) The method as claimed in claim 35, wherein, in addition to the calculation of the dimensions of the specific area, the position of the specific area with respect to the vehicle is determined on the basis of the recorded ambient data.
42. (New) The method as claimed in claim 41, wherein the calculated dimensions and position of the specific area are transmitted to a control system for an automatic parking system.
43. (New) A device for providing parking aid for a vehicle, comprising
a sensor device for recording ambient data in an external area of a vehicle,
and
an evaluation device for calculating dimensions of a specific area on a basis of the recorded ambient data and for evaluating a suitability of the specific area as a parking space on a basis of the calculated dimensions and known, vehicle-specific reference values,

wherein the sensor device comprises an optical 3-D camera for recording three-dimensional images of surroundings.

44. (New) The device according to claim 43, wherein the evaluation circuit determines the dimensions of the specific area on the basis of a situation image of the entire area of interest.
45. (New) The device as claimed in claim 43, wherein the evaluation circuit determines the dimensions of the specific area on the basis of a plurality of successively recorded component images of the area of interest, wherein the various component images are correlated with one another by way of a determined vehicle velocity.
46. (New) The device as claimed in claim 43, wherein the sensor device operates in the infrared range.
47. (New) The device as claimed in claim 43, wherein the evaluation device is coupled to an information system for outputting a result of the evaluation step to a driver of the vehicle.
48. (New) The device as claimed in claim 43, wherein the evaluation unit has means for determining the position of the specific area with respect to the vehicle.
49. (New) The device as claimed in claim 47, wherein the evaluation device is coupled to a control system for an automatic parking system in order to transmit dimension data and position data of the specific area.
50. (New) The device as claimed in claim 43, wherein the optical 3-D sensor system is mounted on the vehicle, in the external area of the vehicle.